

ABSTRACT

The dedicated telecommunications lines functioning as data trunks carrying voice and data between the switching points of a wireless communications system are replaced by virtual data trunks implemented over an Internet Protocol network. An IP gateway associated with each switching point receives a plurality of data trunks carrying communications data. The data are assembled into IP packets, with a source address associated with the gateway and a destination address derived from which data trunk carried the communications data. The IP packets are sent across an IP network to the destination gateways. Incoming data packets, with a destination IP address matching that associated with the IP gateway, are received at the gateway. The data are extracted from the IP packets, and directed to one of the data trunks to the switching point, based on the IP source address of the packet. The virtual data trunks provide a cost effective solution for connecting private wireless office systems to the public wireless communications system to enable handoff and roaming between the private and public systems.